

WHAT IS CLAIMED IS:

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1. An image processing apparatus for
compositing a plurality of component images into a
composite image, comprising:

a separating unit that separates a
10 codestream corresponding to each one of the component
images into a header portion and a data portion,
wherein said codestream is generated by dividing the
corresponding one of the component images into one or
more rectangular regions, transforming pixel values
15 of the divided one or more rectangular regions with
discrete wavelet transform into transform
coefficients, and compressing said transform
coefficients;

a header processing unit that edits said
20 separated header portion so as to composite the
component images into said composite image; and

a codestream generation unit that generates
a codestream corresponding to said composite image by
combining the edited headers and the separated data
25 portions.

2. The image processing apparatus as
claimed in claim 1, further comprising a composite
designating unit that designates a number of the
component images to be composited in said composite
5 image;

wherein

said header processing unit edits said
separated header portion based on the designated
number of the component images.

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3. The image processing apparatus as
15 claimed in claim 2, wherein said composite
designating unit designates at least one of the
number of the component images in horizontal
directions and the number of the component images in
vertical directions.

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4. The image processing apparatus as
25 claimed in claim 1, further comprising a code data

processing unit that extracts predetermined code data from said separated data portion.

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5. An image processing apparatus for decompositing a composite image into a plurality of component images, comprising:

10 a separating unit that separates a
 codestream corresponding to said composite image into
 a plurality of header portions and a plurality of
 data portions, wherein said codestream is generated
 by dividing the corresponding composite image into
15 one or more rectangular regions, transforming pixel
 values of the divided one or more rectangular regions
 with discrete wavelet transform into transform
 coefficients, and compressing said transform
 coefficients;

20 a header processing unit that edits said
 separated header portions for a plurality of new
 codestreams corresponding to said component images;
 and

 a codestream generation unit that generates
25 the new codestreams corresponding to said component

images by combining the edited headers and the corresponding separated data portions.

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6. An image forming apparatus, comprising:
an image input unit that reads an image of
a document;

10 an image compression coder unit that
generates a single codestream by dividing the read
image into one or more rectangular regions,
transforming pixel values of the divided one or more
rectangular regions with discrete wavelet transform
15 into transform coefficients, and compressing said
transform coefficients;

the image processing apparatus as claimed
in claim 1; and

a printer engine that forms an image on a
20 recording medium based on each codestream generated
by said codestream generation unit of said image
processing apparatus.

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7. A computer program that causes a computer to composite a plurality of component images into a composite image, comprising the steps of:

separating a codestream corresponding to

5 each one of the component images into a header portion and a data portion, wherein said codestream is generated by dividing the corresponding one of the component images into one or more rectangular regions, transforming pixel values of the divided one or more

10 rectangular regions with discrete wavelet transform into transform coefficients, and compressing said transform coefficients;

processing said separated header portion so as to composite the component images into said

15 composite image; and

generating a codestream corresponding to said composite image by combining the edited headers and the separated data portions.

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8. The computer program as claimed in claim 7, further comprising the step of designating a

25 number of the component images to be composited in

said composite image;

wherein

said separated header portion is edited
based on the designated number of the component
5 images.

10 9. The computer program as claimed in claim
8, wherein at least one of the number of the
component images in horizontal directions and the
number of the component images in vertical directions
are designated.

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10. The computer program as claimed in
20 claim 7, further comprising the step of extracting
predetermined code data from said separated data
portion.

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11. A computer program that causes a computer to decompose a composite image into a plurality of component images, comprising the steps of:

5 separating a codestream corresponding to said composite image into a plurality of header portions and a plurality of data portions, wherein said codestream is generated by dividing the corresponding composite image into one or more
10 rectangular regions, transforming pixel values of the divided one or more rectangular regions with discrete wavelet transform into transform coefficients, and compressing said transform coefficients;
 editing said separated header portions for
15 a plurality of new codestreams corresponding to said component images; and
 generating the new codestreams corresponding to said component images by combining the edited headers and the corresponding separated
20 data portions.

25 12. A computer readable recording medium

storing the computer program as claimed in claim 7.